

ATV COVER

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PRIORITY

This application claims priority from U.S. provisional patent application number 60/434,941, filed 12/19/2002 bearing the same title and inventor, the disclosure of which is incorporated herein.

DESCRIPTION

BACKGROUND OF THE INVENTION

[0001] Field of the Invention. The present invention generally relates to vehicles, and more particularly relates to removable covers for vehicles.

[0002] Background Information. Vehicle covers, in many sizes and shapes, are generally used to cover a vehicle so as to keep dust, dirt, debris and the elements from contacting and soiling the vehicle itself. For instance, it is well known to use a canvas cover to cover an automobile while it is being stored. When not in use, such covers are typically either folded up neatly, or wadded up into a bundle and stored until they are again need.

[0003] Retractable vehicle covers are well known within the prior art. For instance, Farina (U.S. Patent No. 4,720,135) discloses a protective device for a motor vehicle

comprising a retractable cover which retracts into the vehicle's bumper. Adamek (U.S. Patent No. 6,012,759) discloses a retractable vehicle cover which can be mounted upon the roof of the vehicle. The Tung-Chow patent (U.S. Patent No. 4,834,446) discloses a retractable cover which can be mounted within the trunk, the cover extending through the open trunk and over the vehicle. The Ross patent (U.S. Patent No. 4,732,421) discloses a self-storing automobile cover which can be mounted to the bumper of an automobile. The Yong O patent (U.S. Patent No. 4,657,298) discloses a retractable cover extending from the vehicle's trunk to cover the vehicle. The Guma patent (U.S. Patent No. 4,432,581) discloses a portable, automatic carport comprising a cover extending from the frame of the vehicle utilizing a number of brackets upon the surface of the vehicle for support.

[0004] The disadvantages of these prior art devices can include that they are cumbersome to operate, they are visually unsightly in their appearance, and they make installation upon a vehicle complex. What is needed is a retractable cover system which is easy to operate, simple to maintain, simple to install and which provides for a visually appealing storage of the vehicle stored thereunder. The present invention solves these needs.

SUMMARY OF THE INVENTION

[0005] The present invention is a retractable cover attachment for a vehicle, preferably an all terrain vehicle (ATV). This vehicle having a frame. The cover attachment comprises a

housing, a connection and the cover. It is preferred that the cover attachment attaches to the frame at the rear end of the vehicle.

[0006] The housing is utilized for housing the cover, this housing defining an opening therein allowing the cover to be stored within the housing. The housing further comprises a lid for closing the opening and the housing, thereby allowing the cover to be enclosed within the housing. It is preferred that the lid attaches to the housing through use of at least one hinge. This housing, or the cover attachment in general, configured for attachment to the vehicle frame.

[0007] Attaching to the housing is a connection, this connection having a proximal end and a distal end with the housing attaching to the connection's proximal end. This connection also for connecting the housing to the cover. Attaching to the connection's distal end is the cover. The cover is for covering the vehicle. The cover attaches to the housing via the connection.

[0008] Still other objects and advantages of the present invention will become readily apparent to those skilled in this art from the following detailed description wherein I have shown and described only the preferred embodiment of the invention, simply by way of illustration of the best mode contemplated by carrying out my invention. As will be realized, the invention is capable of modification in various obvious respects all without departing from

the invention. Accordingly, the drawings and description of the preferred embodiment are to be regarded as illustrative in nature, and not as restrictive.

BRIEF DESCRIPTION OF THE DRAWINGS

- [0009] Fig. 1 is an environmental side view of one embodiment of the present invention.
- [0010] Fig. 2 is an environmental side view of a second embodiment of the present invention.
- [0011] Fig. 3 is a partial side view of the embodiment of Fig. 2.
- [0012] Fig. 4 is a partial side view of the embodiment of Fig. 2 shown in the stored mode.
- [0013] Fig. 5 is a closed rear view of the embodiment of Fig. 2.
- [0014] Fig. 6 is an open rear view of the embodiment of Fig. 2.
- [0015] Fig. 7 is a perspective view of third embodiment of the present invention.
- [0016] Fig. 8 is an end view of the embodiment of Fig. 7.
- [0017] Fig. 9 is another view of the embodiment of Fig. 7 showing the bag opened with the cover exposed.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0015] While the invention is susceptible of various modifications and alternative constructions, certain illustrated embodiments thereof have been shown in the drawings and

will be described below in detail. It should be understood, however, that there is no intention to limit the invention to the specific form disclosed, but, on the contrary, the invention is to cover all modifications, alternative constructions, and equivalents falling within the spirit and scope of the invention as defined in the claims.

[0016] The present invention is a cover attachment for attaching a cover to a vehicle. Referring initially to Fig. 1, shown is an all terrain vehicle (ATV) 2 having a frame 4. This ATV 2 also having a rear end 6 opposite a front end. Attaching to the frame 4 of the ATV 2 at the rear end 6 of the ATV 2 in this embodiment is the cover attachment 10. While the present invention is shown being utilized on an all terrain vehicle (ATV), it is expressly intended that other types of vehicles (such as automobiles, aircraft, snow mobiles, golf carts, motorcycles, personal watercrafts, etc.) may utilize the present invention as a way of attaching a cover. In the embodiment shown in Fig. 1, the vehicle cover is shown stored within the ATV covering attachment 10.

[0017] Referring now to Fig. 2, shown is a second embodiment of the present invention. In this embodiment, the covering attachment 10 is shown with the cover 20 in its extended or deployed stage covering the ATV 2. This embodiment shows a cover which rests loosely upon the vehicle, however other styles and types of covers are also envisioned, including partial covers, pleated covers, and covers with elastic portions, for instance an elastic gather at the bottom of said cover.

[0018] Referring now to Fig. 3, shown is a close up of the rear end portion of Fig. 2 shown in cutaway so that details may be revealed. In Fig. 3, the covering attachment 10 comprises a housing 18 having an open end or opening 24. This open end 24 able to be closed by a door 12 attaching to a hinge 14. This housing 18 further defining a storage compartment 16 therein for storage of the cover 20 within the housing 18. This housing 18 configured for attachment to the frame 4 of the vehicle, for instance by welding, bolting, strapping, hook and loop style attachment, etc.

[0019] Alternatively, as shown in Figs. 7-9, the covering attachment 10 can comprise a housing 118 having an opening 132 therein. This opening preferably configured to be closed through use of a zipper 144, this zipper preferably oriented length-wise. Other manners of closing the opening are likewise envisioned, including but not limited to snaps, hook and look fasteners, etc.

[0020] The housing 110 in this embodiment is made from a fabric, such as the preferred 200 Denier nylon. The preferred embodiment utilizes a twenty-four inch long cylindrical housing (bag) having a six-inch diameter. Other sizes, shapes and orientations are likewise envisioned. In being fabric, this embodiment is a soft walled version in comparison to the hard walled version of Fig. 1-6.

[0021] The embodiment further utilizes a pair of adjustable mounting straps 150, 152, preferably twelve inches long and three-quarters of an inch wide, preferably having adjustable snap buckles 98, which allow the housing to be attached to the frame of the vehicle. Being adjustable, their mounting location is variable. Being snap buckles, the entire assembly is easily detachable from the frame. The preferred location of attachment is the back rack of the vehicle (ATV), either below the rack or above the rack. Other locations, numbers and manners of attachment are also envisioned.

[0022] It is preferred that a handle 90 be provided for allowing the covering attachment to be more easily hand-carried when not installed on the vehicle. The handle shown is a nylon strap handle which is sewn onto the device.

[0023] The cover 120 is configured to be stored within the bag (housing) 118 and is fixedly attached to the bag 118, preferably adjacent the handle 90. In the embodiment shown in Figures 7-9, the cover 20 is fixedly attached by being sewn to the housing (bag) 118. The benefit in sewing the cover to the bag is that the cover never gets lost or misplaced.

[0024] Preferably, adjacent the opening and zipper is preferably a flap 94 for covering the zipper. This flap is configured to fold down over the zipper when the zipper is not being manipulated. The flap is preferred, but not mandatory.

[0025] It is preferred that the fabric utilized with the present invention (both the cover and the bag) be weather and/or waterproof. In use, the user would mount the bag to the vehicle using the straps and adjusting the straps as necessary. The user would then be able to unzip the bag, withdrawing at least a portion of the cover, this cover then pulled over the vehicle while remaining attached to the bag itself. When the user is done using the cover, the cover can be removed from covering the vehicle and be wadded, rolled or otherwise placed back into the bag, with the zipper then being closed thereby securely storing the cover until the next time the cover is needed.

[0026] Referring back to Figs. 1-6, preferably attaching to some portion of the housing 18 is a connection 40 for connecting the housing 18 to the cover 20. Just as well, the cover 20 itself could be connected directly to the housing 18 without use of such a connection. In the embodiment shown, this connection 40 comprises a length of strapping or cord which is attached to the housing 18 through the use of an attachment 50 and is attached to the cover at an attachment point 58. The attachment 50 shown in this figure is a bolt which fastens the proximal end of the connection 40 to the housing 18. The distal end of the connection 40 connecting to the cover 20 at an attachment point 58. Such an attachment can be through any number of ways, including staples, adhesives, rivets, sewing, etc. It is preferred that the attachment point 58 be located on the inside portion of the cover for simplicity.

[0027] Referring now to Fig. 4, the view of Fig. 3 is shown wherein the cover has been

folded or wadded up and stored within the storage compartment 16. This Figure likewise shows the door 12 being closed. In such a manner, the cover can be contained within the storage compartment, preferably in a water and dust tight environment. Preferably the cover is provided with a closure 30 (30') enabling the cover to be locked in the closed mode. It is preferred that the housing be made of a plastic material, however other materials will also work.

[0028] Thus, use of the cover on the vehicle requires opening the door (assuming that it was previously closed), reaching inside the storage compartment to grab a portion of the cover, pulling the cover out of the storage compartment and extending the cover over the frame of the vehicle. It is preferred that the user, in storing the cover within the storage compartment, place the rear of the cover into the storage compartment first, then the front of the cover into the storage compartment. That way when attempting to cover the vehicle the user would pull out the front of the vehicle cover, cover the front of the vehicle, then pull out the rear of the vehicle cover and cover the rear of the vehicle.

[0029] Directly attaching the cover to the housing, with or without a connection, has many benefits. The first benefit of which is the fact that the user is not likely to misplace the cover because the cover is fixedly attached to the housing. An additional benefit is that if the cover is not tied securely to the vehicle and the cover is blown off by wind, the cover remains at least partially attached to the vehicle and is not allowed to be blown away. Another benefit

to attaching the cover directly to the housing is that the attachment serves as the equivalent of an additional set of hands when covering the vehicle with the cover. Thus, when the user pulls the cover out of the storage compartment of the housing and drags the front of the cover to the front of the vehicle, the attachment of the housing to the cover serves to hold the cover onto the rear of the vehicle while this spreading or covering process is taking place. This greatly simplifies and hastens the covering process.

[0030] Referring now to Fig. 5, shown is a first end view of another embodiment of the present invention shown in its closed state. While the invention is generally discussed within this description as being attached to the rear of the vehicle, it is expressly intended that the covering attachment could be located at any location along the frame of the vehicle. In this embodiment, the covering attachment 10 is shown attached to the housing 4 of the vehicle. In its closed mode, the door 12 of the covering attachment 10 seals and covers the storage compartment of the housing. In this embodiment, a long piano hinge like attachment is utilized to attach the door to the housing. Many different means of hingedly connecting the door to the housing are also envisioned, including the use of rubber straps, forming the housing and the door from the same material connected by a hinge of similar material, as well as other means.

[0031] A pair of closures 30, such as standard plastic or metal snap closure buckles, are utilized to releasably close the device. Additionally, any type of closure or other means of

holding the door closed upon the housing thereby forming, preferably, a watertight storage compartment are also envisioned and not intended to be limited by the present disclosure.

[0032] Referring now to Fig. 6, shown is the embodiment of Fig. 5 shown in its open state. This figure shows the door 12 of the covering attachment 10 open, this door 12 attaching to the housing 18 through use of a hinge 14. The attachment 50 is shown provided for attaching the connection 40 to the housing 18. In this embodiment, the attachment 50 comprises a rigid strap 52 held generally against the back wall 19 of the housing through use of a pair of screws or bolts 51, thereby retaining the proximal end 41 of the connection 40. Various different types of attachments could also be used, including, but not limited to, hook and loop style fasteners, snaps, buckles, loops, knots, holes within the housing itself, etc.

[0033] The housing could further be provided with mounting holes or brackets located at different locations thereby allowing the housing to be mounted on a wide variety of surfaces, vehicles and vehicle locations.

[0034] While there is shown and described the present preferred embodiment of the invention, it is to be distinctly understood that this invention is not limited thereto but may be variously embodied to practice within the scope of the following claims. From the foregoing description, it will be apparent that various changes may be made without departing from the spirit and scope of the invention as defined by the following claims.